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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 16

Application Number: 09/335,201
Filing Date: June 17, 1999
Appellant(s): HILL ET AL.

Joice Tom, Reg. No. P48,681
For Appellant

EXAMINER'S ANSWER

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-14, since claims 13 and 14 have never been cancelled by the amendment.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

No amendment after final has been filed. The Response to Final Office Action filed on 5/29/01 does not contain any amendments, but only the Remarks.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows:

1. Whether claims 1-8 (not 1-10 as cited in the Brief) are anticipated by Knights (U.S. Patent No. 5,752,857) (Knights) under 35 U.S.C. 102(b).

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because there is no grouping for claims 13 and 14 has been presented.

(8) Claims Appealed

Claim 6 contain(s) substantial errors as presented in the Appendix to the brief. Accordingly, claim 6 is correctly written in the Appendix to the examiner's answer.

(9) Prior Art of Record

5,752,857	Knights.	5-1998
4,749,364	Arney et al.	6-1988

(10) Grounds of Rejection

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US/5,752,857 to Knights.

Regarding claim 1, Knights disclosed, (Fig. 7), a PC accessory unit for use with a desktop personal computer assembly including a PC keyboard (10), the PC accessory unit comprising: a body structure (180) incorporating electronic circuitry (30) for operation with a PC; and a connecting assembly (84A, 92) coupled to the body structure for attaching body structure externally to the PC keyboard (10).

Regarding claim 6, Knights disclosed, (Fig. 7), a PC accessory unit for use with a PC keyboard (10), comprising: a body structure (180) incorporating electronic circuitry (30) for

operation with a PC; a connecting assembly (84A, 92) coupled to the body structure (180); wherein the connecting assembly is coupled externally to the keyboard.

Regarding claim 7, Knights disclosed that the body structure is a Smartcard utility kit, (column 2, lines 1+).

Regarding claims 2 and 8, Knights disclosed a clip (two prongs positioned between members 84A).

Regarding claim 3, Knights disclosed that said clip has two prongs for insertion into openings in a PC keyboard, (Fig. 7).

Regarding claim 4, Knights disclosed that the PC accessory unit is a Smartcard utility kit, (column 2, lines 1+).

Regarding claim 5, Knights disclosed that the clip of the Smartcard utility kit is inserted into keyboard openings, (Fig. 7).

3. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US/4,749,364 to Arney et al., (Arney).

Regarding claims 9, Arney disclosed, (Fig. 1) a PC accessory unit comprising: a body structure (105) incorporating electronic circuitry for operation with a PC; a connecting assembly (107), including a clip (109) coupled to the body structure; and a keyboard (101) having a backside surface facing away from a user, the keyboard configured to receive the connecting assembly and clip at the backside of the keyboard to dress the PC accessory unit to the backside of the keyboard, the keyboard being a stand alone component.

Regarding claim 10, Arney disclosed, (Fig. 1) a PC accessory unit, comprising: a body structure (105) for holding a device (111) for use with a PC; a connecting assembly (107), including a clip (109) coupled to the body structure; and a keyboard (101) having a backside surface facing away from a user, the keyboard configured to receive the connecting assembly and clip at the backside of the keyboard to dress the PC accessory unit to the backside of the keyboard, the keyboard being a stand alone component.

Regarding claim 11, Arney disclosed that said keyboard (101) has a plurality of openings (103) for receiving the clip (109).

Regarding claim 12, Arney disclosed that at least one opening (103) of the plurality of openings is located at a backside of the keyboard (101), the backside being a surface facing away from the user, (Fig. 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knights.

Knights disclosed all of the claims limitations as apply to claims 1 and 6 respectively, but did not disclose that said connecting assembly include a Velcro strip.

The Official Notice is taken that Velcro strips have been notoriously known to a person of ordinary skill in the computer art at the time the invention was made as a widely used means for joining separate components of the device together, therefore it would have been an obvious matter of the design choice to use said Velcro strips for the connecting assembly of Knights in order to simplify the connecting assembly.

(11) Response to Argument

First point of arguments: The Knights Adapter is Not Attached *Externally* to the Keyboard.

Contrary to the aforementioned statement, the Examiner believes that Fig. 7 of Knights clearly depicts that the body structure (180) of the accessory unit (i.e. the adapter) is attached externally to the keyboard (10), since the entire adapter (180) is positioned externally to the keyboard. The Examiner would like to direct the Honorable Board's attention to the fact that connecting assembly of Knights is precisely identical to the connecting assembly of the present invention, i.e. the two-prong clip (14) depicted on Fig. 1 of the Appellant's disclosure is identical to the two-prong clip (positioned between members (84A)) as shown on Fig. 7 of Knights patent.

The Appellant's statement that "IC card is not a part of the computer" (page 9, lines 6 of the Brief) is simply incorrect, since as shown on Fig. 7, the IC card (14A) in conjunction with the keyboard (10) constitutes an integrated computer system, thus rendering the IC card to be a part of the computer. Following the Appellant's reasoning one would not consider a microprocessor chip plugged in to the socket on the computer motherboard to be a part of the computer either.

Therefore, it is believed, that the Appellant is in error stating that adapter or connecting assembly of Knights is not attached externally to the keyboard. Knights clearly teaches a keyboard (10) configured to receive a connecting assembly (84A, 92) such that the body structure (180) is attached externally with the keyboard. Also, since the connecting assembly of the present invention (a two-prong clip) is precisely identical to the two prong clip of Knights, all of the claims limitations directed to said connecting assembly would read on the Fig. 7 of Knights patent.

Second point of arguments: The Knights Adapter is Not Attached to the *Keyboard.*

Regarding the Appellant's statements that "The connecting assembly provides mechanical attachment only, and because it is attached externally, it does not provide an electrical connection to the computer" (page 9, lines 17-19 of the Brief), the Examiner would like to direct the Honorable Board's attention to the fact that no such limitations are present in the claims of the instant application.

Regarding the Appellant's statement that "Without an electrical contact with the computer, Knights adapter would be useless because the computer would not be able to access the contents of the Smartcard", (page 10, lines 2-3 of the Brief), the Examiner would like to direct the Honorable Board's attention to the fact that aforementioned statement may be equally applied to the device of the present invention, since the present invention is also a Smartcard adapter, (page 2 of the present disclosure).

Third point of arguments: The Knight Adapter is Not Attached to a Stand Alone Keyboard.

The main thrust of the Appellant's arguments is directed to the fact that Knights did not disclose a stand-alone keyboard.

The Examiner would like to direct the Honorable Board's attention to the fact that element (10) of Knights (Fig. 1 and 7), is a stand-alone keyboard.

The following are the definitions of the *keyboard* taken from "The IEEE Standard Dictionary of Electrical and Electronics Terms", Sixth Edition (page 566):

(1) "A device for the encoding of data by key depression that causes the generation of the selected code element."

(2) "An input device consisting of a systematic arrangement or layout of keys, used to encode data"; and

from "The Illustrated Dictionary of Electronics", Sixth Edition (page 368):

"*An array of lettered or numbered, lowtorque push buttons, usually similar to the keyboard of a typewriter, used to enter information into a computer, telegraph, teletypewriter, or automatic control system".*

According to the aforementioned definitions, the device (10) of Knights comprising an array of lettered and numbered keys (192) is a stand-alone keyboard.

Also, even if the assumption is made that said device (10) of Knights is not a keyboard, the Appellant's statement that the keyboard "does not include memory or a processor" (page 10, line 15 of the Brief) is simply incorrect. Firstly, the Examiner would like to direct the Honorable Board's attention to the fact that no such limitations are present in the claims of instant application, and secondly, some of the computer keyboards may include signal and data

processing circuits incorporating processors and memory (for example, cordless keyboards utilizing infrared or radio transceivers and keyboards with embedded calculators).

Forth point of arguments: Claims 9-12 are Allowable Over Arney.

The Appellant stated, that Arney did not disclose a stand-alone keyboard. Contrary to the aforementioned position, and in light of the earlier discussion regarding the Knights keyboard, the Examiner believes that element (101) of Arney, (Fig. 1) is a stand-alone keyboard.

Also, it is believed that the Appellant is in error stating, that unit (105) of Arney is attached internally to the keyboard (101), i.e. the unit (105) is plugged into the keyboard (101) via sockets (103). Contrary to the aforementioned position, the Examiner believes that said unit (105) of Arney is attached externally to the keyboard (101), as clearly shown on Fig. 1, (i.e., the body of the unit (105) is positioned outside of the keyboard (101)).

Following the Appellant's reasoning, one would conclude that the accessory unit disclosed in the instant application (Fig. 1), is also not connected to the keyboard externally as claimed in the instant application, but internally, since the connecting assembly (two-prong clip (28)) is accepted within the keyboard by openings (32, 34), (Fig. 3; page 5, lines 5 and 6 of the instant application).

Therefore, based on the preceding discussion, the Arney reference teaches "a keyboard...configured to receive the connecting assembly and clip..., such that the body structure is attached externally with the... keyboard, the keyboard being a stand alone component", as recited in claims 9 and 10.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner
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A.V.

October 25, 2001

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APPENDIX A

Claim 6.

6. A PC accessory unit for use with a stand alone PC keyboard, comprising:

a body structure incorporating electronic circuitry for operation with a PC;

a connecting assembly coupled to the body structure;

wherein the connecting assembly is coupled externally to the PC keyboard.

Appendix-B

The IEEE Standard Dictionary of Electrical and Electronics Terms

Sixth Edition

Standards Coordinating Committee 10, Terms and Definitions
Jane Radatz, Chair

This standard is one of a number of information technology dictionaries being developed by standards organizations accredited by the American National Standards Institute. This dictionary was developed under the sponsorship of voluntary standards organizations, using a consensus-based process.

ISBN 1-55937-833-6

with an exposed handle or pushbutton, capable of closing or opening one or more parts of a circuit. (COM) 312-1977w

(2) (rotating machinery) A bar that by being recessed partly in each of two adjacent members serves to transmit a force from one to the other. *See also:* rotor. (PE) [9]

(3) (software) One or more characters, within a set of data, that contains information about the set, including its identification. *See also:* data. (C/SE) 729-1983s

(4) (A) (data management) In data management, a data element or concatenation of data elements that identifies an item within a set of items. *Note:* Such a data element is also known as a key field. *Synonyms:* key field; sequence field. *See also:* concatenation; key value; primary key; secondary key; sort key. (B) (data management) In a relational data model, one or more attributes that, when taken together, identify the relation to which the attributes belong. (C) (data management) In a tree, the portion of each node that identifies that node. (C) 610.5-1990

(5) A sequence of symbols that controls the operations of encipherment and decipherment. (C/LM) 802.10-1992

(6) When used in the context of a ROM entry, refers to an 8-bit field whose value identifies a ROM location as an immediate entry, offset entry, leaf entry, or subdirectory entry. This is a term used (but not defined) in ISO/IEC 13213: 1994. (BA/C) 896.2-1991

(7) (A) A manually activated mechanism on a keyboard, used for entering a character or command into a computer system. *See also:* control key; typing key. (B) To press a lever or button. (C) 610.10-1994

(8) (relational data base) A field or group of fields in a relational data-base table that uniquely defines each row within that table. A composite key is made up of more than one field in the table. (PE) 1150-1991

keyboard (1) (test, measurement, and diagnostic equipment) A device for the encoding of data by key depression that causes the generation of the selected code element. (MIL) [2]

(2) An input device consisting of a systematic arrangement or layout of keys, used to encode data. *See also:* Dvorak keyboard; keypad; live keyboard; membrane keyboard; QWERTY keyboard. (C) 610.10-1994

keyboard punch *See:* keypunch.

keyboard scanner A unit within a keyboard that detects the depression of a key and generates an encoded signal indicating the identity of that key. (C) 610.10-1994

keyboard send/receive (KSR) A teletypewriter unit with keyboard and printer. *Contrast:* automatic send/receive. (C) 610.10-1994

keyboard-to-disk *See:* key-to-disk converter.

key code An alpha or alphanumeric designator used to identify the style and angular position of the keying pins. (BA/C) 1101.3-1993, 1101.4-1993, 1101.7-1995

key compression The elimination of data from the beginning and the end of a key in which these characters are not needed to distinguish the key from other keys in the set. (C) 610.5-1990

key distribution system The manual or automated means by which cryptographic keys are communicated between nodes of a computer or communications system. (C) 610.7-1995

keyed access *See:* indexed access.

keyer A device that changes the output of a transmitter from one value of amplitude or frequency to another in accordance with the intelligence to be transmitted. *Note:* This applies generally to telegraph keying. *See also:* radio transmission. (AP) 145-1983s

key field *See:* key.

key folding function A hash function in which the original key is split into two or more parts and some portion of their sum is returned as the hash value. For example, in the function below, the key is divided into three parts and the sum of the three parts is returned as the hash value.

Original key	Calculation	Hash value
96472135	964 + 721 + 35 = 1738	1738
90007810	900 + 078 + 10 = 988	988

(C) 610.5-1990

key gases Gases generated in oil-filled transformers that can be used for qualitative determination of fault types, based on which gases are typical or predominant at various temperatures. (PE) C57.104-1991

key generation The process of generating the key values for the items in a set according to some algorithm. (C) 610.5-1990

keying (1) (modulating systems) Modulation involving a sequence of selections from a finite set of discrete states. *See also:* telegraphy. (IT) [7]

(2) (telegraph) The forming of signals, such as those employed in telegraph transmission, by an abrupt modulation of the output of a direct-current or an alternating-current source as, for example, by interrupting it or by suddenly changing its amplitude or frequency or some other characteristic. *See also:* telegraphy. (AP) 145-1983s

(3) (television) A signal that enables or disables a network during selected time intervals. *See also:* television. (BT) [34]

keying interval (modulation systems) (periodically keyed transmission system) One of the set of intervals starting from a change in state and equal in length to the shortest time between changes of state. *Note:* The keying interval equals the symbol duration. (IT) [7]

keying rate (modulation systems) The reciprocal of the duration of the keying interval. (Std100) 270-1964w

keying wave *See:* marking wave.

keyless ringing (telephony) A form of machine ringing on manual switchboards that is started automatically by the insertion of the calling plug into the jack of the called line. (EEC/PE) [119]

key letter in context index (KLIC) A variation of a keyword in context (KWIC) index in which letters are used as the fundamental indexing units instead of keywords. *See also:* key phrase in context index. (C) 610.2-1987

key light (illuminating engineering) The apparent principal source of directional illumination falling upon a subject or area. (EEC/IE) [126]

key management The generation, storage, distribution, deletion, archiving, and application of keys in accordance with a security policy. (C/LM) 802.10-1992

key management stack The protocols residing above SDE that request services via an SDE SAP that is supported by the use of a bootstrap SAID with either of the two values reserved for key management. (C/LM) 802.10-1992

keypad A small group of keys that are set up for convenience and greater flexibility such that they are grouped together physically on a keyboard. For example, a numeric keypad or a cursor control keypad. (C) 610.10-1994

key phrase in context index (KPIC) A variation of a keyword in context (KWIC) index in which phrases are used as the fundamental indexing units instead of keywords. *See also:* key letter in context index. (C) 610.2-1987

key pin A hardware implementation that prevents mating of incompatible modules. (BA/C) 1101.4-1993, 1101.7-1995

key pulsing (telephone switching systems) A switchboard arrangement using a nonlocking keyset and providing for the transmission of a signal corresponding to each of the keys depressed. (COM) 312-1977w

key-pulsing signal (telephone switching systems) In multifrequency and key pulsing, a signal used to prepare the equipment for receiving digits. (COM) 312-1977w

keypunch A keyboard-activated card punch that punches holes in a card, according to input received from the keyboard

Page. 10

Synonym: keyboard punch.

keypunching The process of punch cards.

key range A particular range some set of data. *Note:* Ke the set into subsets.

key sequence Pertaining to a s according to the value of s

keyshelf (telephone switchin mounted control keys for us

key sorting A sorting techni and corresponding address stored are manipulated ins selves. *See also:* address ta

keystone distortion (televisio that results in a trapezoidal raster or picture. *See also:*

keystroke The action of press

keystroke counter A counte depressions made on a give

key-to-disk converter An in a keyboard to disk storage. *also:* card-to-disk converte

key-to-tape converter An in a keyboard to magnetic tap key-to-disk converter.

key transformation In searc of keys into a set of intege

key transformation function

key value The contents of a

keyway (rotating machinery *also:* key.

keyword In automatic indexi document that characterizes *onyms:* descriptor; lead ter

keyword and context *See:* k

keyword and context index context index in which ite permutation index. *See also* index.

keyword in context *See:* key

keyword in context index which keywords are placed column and the remainder right and left, preserving t of context index. *See also* index; key letter in context keyword and context inde

keyword out of context *See:*

keyword out of context ind in which the keywords are text and are displayed in context following on the r keyword in context index. dex; word and author inde

keyword out of title *See:* ke

keyword out of title index index in which the items b

kHz *See:* kilohertz.

kick-sorter *See:* pulse; pulse

kilo (A) (mathematics of co thousand (10^3). (B) (mat

Appendix - C

The Illustrated Dictionary of Electronics

Sixth Edition

Stan Gibilisco

TAB Books
Division of McGraw-Hill, Inc.
New York San Francisco Washington, D.C. Auckland Bogotá
Caracas Lisbon London Madrid Mexico City Milan
Montreal New Delhi San Juan Singapore
Sydney Tokyo Toronto

[redacted]

earth's magnetic field, and also the magnetic declination at a given point on the earth's surface. The device is designed for very high accuracy, using magnifying lenses.

key **1.** A specialized hand-operated switch used to make and break a circuit repetitively to form the dot and dash signals of telegraphy. **2.** A projection or pin that guides the insertion of a tube or other plug-in component into a holder or socket. **3.** A digit or digits used to locate or identify a computer record (but not necessarily part of the record).

keyboard An array of lettered or numbered, low-torque push buttons, usually similar to the keyboard of a typewriter, used to enter information into a computer, telegraph, teletypewriter, or automatic control system.

keyboard computer A digital computer in which the input device is an electrical keyboard of the typewriter or calculator type.

keyboard entry The operation of a keyboard to enter information into a computer for processing.

keyboard keyer A device for automatically sending Morse code using a typewriter-like keyboard rather than a paddle or straight key. Each key on the keyboard, when pressed, produces the complete character and a space following it. Some keyboard keyers have buffers to allow typing well ahead of the code being sent, with insertion of all the correct spaces. The speed range is usually from about 5 words per minute (wpm) to 60 or 70 wpm, although some keyboard keyers are programmed for speeds over 100 wpm.

keyboard lockout A keyboard interlock in a data transmission circuit that prevents data from being transmitted while the transmitter of another station on the same circuit is operating.

keyboard perforator A keyboard-operated machine that perforates paper or plastic tape for the automatic keying of a telegraph circuit, Teletype, radio transmitter, or automation system.

keyboard punch *See* KEY PUNCH.

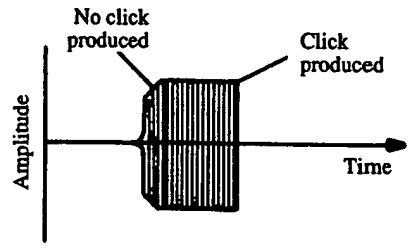
keyboard send-receive unit A teletypewriter lacking an automatic input device.

key cabinet In a telephone system, a facility that tells a subscriber which lines are busy and which lines are open.

key chirp A chirping sound in a received signal, resulting from the slight frequency shift when a radiotelegraph transmitter is keyed without some precaution preventing the shift.

key-click filter A (usually inductance-capacitance) filter for smoothing a keying wave to eliminate interference from key clicks.

key clicks **1.** Clicking sounds in a received radiotelegraph signal when the transmitter being keyed produces rectangular-wave modulation (i.e., steep rises and falls); filters can eliminate the fault. **2.** Clicking sounds produced by the sparking in the contacts of a radiotelegraph key or relay (interference in receivers near the offending transmitter).



key clicks

keyed agc A controlled automatic gain control system in TV receiver circuits. The agc acts when the horizontal sync pulse appears; it is inactive between pulses. This action prevents "control" of the agc by noise transients and picture-signal elements.

keyed clamp A clamping circuit that uses a control signal to determine the clamping time.

keyed interval In a transmission system that is keyed periodically, an interval beginning with a change in state and having a duration of the shortest time between changes in state.

keyed rainbow generator For color-TV testing, a signal generator that produces a rainbow color pattern on the screen (i.e., a set of 10 vertical color bars representing the spectrum, with blank bars in between). The pattern results from gating the 3.56-MHz oscillator in the receiver at a frequency of 189 kHz.

keyer An automatic device for keying a radiotelegraph transmitter or wire telegraph circuit. The keyer may operate from perforated tape, an embossed disk, magnetic tape, or other similar recording.

keyer adaptor A modulated-signal detector that produces a dc signal of an amplitude sympathetic with the modulation; it provides the keying signal for a frequency-shift exciter in radio facsimile transmission.

keying The modulation of a signal—breaking it up into intervals of varying duration—by intermittently varying the frequency of the signal, or by intermittently modulating the signal's amplitude.

keying chirp A rapid change in the frequency of a continuous-wave signal, occurring at the beginning of each code element. In the receiver, the resulting sound is a chirp.

keying error rate In data transmission, the ratio of incorrectly keyed signals to the number of signals keyed.

keying filter *See* KEY-CLICK FILTER.

keying frequency **1.** In a modulated CW radiotelegraph transmitter, the audio frequency (tone) of the dot and dash signals (as opposed to the carrier frequency). **2.** In CW radiotelegraphy, transmission speed (*see* KEYING SPEED). **3.** The number of times per second that a black-line sig-